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## FIT Clinical Decision Making

## RECURRENT PULMONARY EDEMA: IS THE HEART ALWAYS GUILTY?

Moderated Poster Contributions

Pulmonary Hypertension and FIT Clinical Decision Making Moderated Poster Theater, Poster Hall B1

Saturday, March 14, 2015, 10:15 a.m.-10:25 a.m.

Session Title: FIT Clinical Decision Making: Moderated Poster Session I

Abstract Category: Vascular Medicine

Presentation Number: 1127M-05

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**Background:** Recurrent episodes of flash pulmonary edema associated with hypertension might indicate secondary causes of hypertension. Page kidney is an uncommon cause of secondary hypertension that could be easily missed.

**Case:** A 27 year-old man presented with recurrent flash pulmonary edema (thrice in 2 months). Despite compliance with anti-hypertensives, he had persistently elevated blood pressures. Examination revealed normal S1 and S2, mild pedal edema and no bruits. Labs were notable for a GFR< 10 cc/min.

**Decision Making:** Work up for secondary hypertension revealed elevated renin and aldosterone levels. Doppler ultrasounds of the kidneys were normal. A careful history revealed the patient sustained blunt abdominal trauma a year ago, causing a self limiting right perinephric hematoma. This raised the concern for 'Page kidney', from extrinsic compression of the kidney from scar tissue causing huge renin surges. Renal vein renin sampling results (Table) were highly suggestive of right-side Page kidney. Branch renal vein renin sampling localizes the anatomic site of renin hyper secretion, to guide eventual partial or total nephrectomy, which is fortunately curative.

**Conclusion:** This case demonstrates the importance of a thorough clinical history and exam in the differential diagnosis of hypertension and flash pulmonary edema.

TABLE

Right renal vein	104.2
Left Renal Vein	69.47
Infrarenal IVC	73.95
Renin Lateralisation ratio	1.5:1 ( $\geq 1.5:1$ in hyperreninemic renovascular causes of hypertension)
Renal/Systemic Renin index	0.40 ( $>0.24$ in hyperreninemic renovascular causes of hypertension)